## **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

70.28 File #:

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004903 Address: 333 Burma Road **Date Inspected:** 08-Dec-2008

City: Oakland, CA 94607

**OSM Arrival Time:** 830 **Project Name:** SAS Superstructure Prime Contractor: American Bridge/Fluor Enterprises, a JV **OSM Departure Time:** 1700

Contractor: Japan Steel Works **Location:** Muroran, Japan

Makhmud Ashadi **CWI Name: CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No **Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Tower, Jacking and Deviation Saddles

### **Summary of Items Observed:**

On this date, Caltrans Office of Structural Materials (OSM) Quality Assurance Inspector (QA) James Weaver was present at the Japan Steel Works (JSW) jobsite in Muroran, Japan for the purpose of observing in-process fabrication of components for the Tower, Jacking and Deviation Saddles. Current work: Casting, machining, welding and nondestructive testing of Saddles and Bases.

## W2-E2 Casting

The QA inspector periodically observed the Nikko Inspection Services QC/NDT Level II technician Mr. H. Kohama perform wet Magnetic Particle (MT) testing W2-E2 in the trough area on the side opposite the stamped side. The testing was performed with a yoke type MT machine using AC power. The MT was performed in accordance with ASTM standard E709 and Nikko Inspection Services procedure SF-MT-01 using the yoke method. The testing was evaluated in accordance with the contract special provisions. No relevant indications were marked by Mr. Kohama. The testing was not completed on this date and the work appears to meet the minimum requirements of the contract specifications. The testing was not completed on this date and the work appears to meet the minimum requirements of the contract specifications.

#### T1-3 Base

The QA inspector observed the Magnetic Particle (MT) inspection of the tack welds on 9Y-6V (3-2) and 9Y-9V (3-2). The MT inspections were performed by The Nikko Inspection Services QC/NDT technician Mr. K. Kumagia MT was performed in accordance with ASTM standard E709 and Nikko Inspection Services procedure SF-MT-01 using the yoke method with dry visible powder. The testing was evaluated in accordance with the contract special provisions. No relevant indications were marked by Mr. Kumagia. The testing was not completed

# WELDING INSPECTION REPORT

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on this date and the work appears to meet the minimum requirements of the contract specifications.

QA Observed the JSW welding personnel tack welding the root pass on weld joints 9Y-7V (3-2), 9Y-7V (3-3) and 9Y-11V (3-3) The welding was performed utilizing the Shielded Metal Arc Welding (SMAW) process. The welding parameters and heat control were monitored by Intertek Testing Services Quality Control (QC) inspector Mr. Chung-Fu Kuan at periodic intervals. The minimum preheat temperature of 110°Celsius was verified to meet the WPS requirements by Mr. Kuan was observed by the QA inspector utilizing Tempilstik temperature indicators. This data was entered into the QC inspector's daily log, identifying the location on a weld map. The work was not completed on this date and appears to meet the minimum requirements of the welding procedure specification and contract documents.





#### **Summary of Conversations:**

There were general conversations with Intertek Testing Services Certified Welding Inspector Mr. Makhmud Ashadi relative to the location of the welding and inspection personnel in the fabrication shop number 4.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ryan Smith, (858) 232-6799, who represents the Office of Structural Materials for your project.

Inspected By:	Weaver,James	Quality Assurance Inspector
Reviewed By:	Lanz,Joe	QA Reviewer